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EXAMINER

WOO, KUO-KONG

ART UNIT

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,977	Applicant(s) ZHANG, WENLIN	
	Examiner KUO WOO	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responsive to the amendment files on June 15, 2009.
2. Claims 1-4, 8-10, 13, 15, 20-24 and 29 have been amended. Claim 7 had been cancelled. Claims 1-6 and 8-29 are currently pending.

Response to Remarks

3. Applicant argues “deciding network selection information to be carried based on the **WLAN information stored in the WLAN UE.**” The amended claim 1 has altered original claim with different scope of invention. Reference art 3GPP TS V1.910.0.: Section 7.6 and 7.7 and Figure 7.6 and 7.7 illustrated and recite “WLAN user is authenticated and authorized for WLAN access. User profile is downloaded into 3GPP AAA server”. WLAN information is stored in the UE to download to AAA server. However, 3GPP may not explicitly teach WLAN information is stored in WLAN UE. New reference Hind teaches UE scan the network and established preferred list for available network information stored at SIM of UE which UE based on those information to decide the network selection or rescan network to store the new WALN information.
4. Applicant’s arguments with respect to claims 1-6 and 8-29 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

5. The drawings are objected to because of following minor informalities:

Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is illustrated in 3GPP TS 23.234 v1.910.0 Figure 6.2, and F1. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 and 8-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3GPP "3rd Generation Partnership project; Technical Specification Group Service and System Aspects; 3GPP system to Wireless Local Area Network (WLAN) internetworking; System Description (Release 6)" Draft 3GPP TS 23.234 V1.10.0; May 2003 (2003-05), hereinafter referred to as 3GPP in view of Hind et al. (US PAT 7,184,768 B2).

Art Unit: 2617

Regarding claim 1, 10 and 20, 3GPP discloses “initiating an authentication procedure after the connection between a WLAN UE and WLAN Access Network AN is established” (Page 8, WLAN Radio networks interworking with 3GPP, WLAN Access, Authentication and Authorization, which provides for access to the WLAN and the locally connected IP network (e.g. Internet) to be authenticated and authorized through the 3GPP System);

“Sending a User Identity Request message to WLAN UE”(page 12, for re-authentication, WLAN UE shall use the previously allocated Re authentication ID as specified in the IETF EAP-SIM and EAP-AKA specifications as its NAI user identity);

“On receiving USID request message, deciding network selection, based on stored in the WLAN UE and returning to WLAN AN” (Page 34, User is registered to a 3GPP AAA server and the authorization information of the associated connection is updated to WLAN as necessary), (Page 33, WLAN stores the keying material and authorization information to be used in communication with the authenticated WLAN UE) and (page 38, WALN user is authenticated and authorized for WLAN access. User profile is download into 3GPP AAA server), wherein information has stored in user prior to download to AAA server;

“Deciding whether network selection is able to route an authentication request message, otherwise, sending a notification signal to WAN UE, and directing WAL UE to perform subsequent operations” (page 18, If the WAN AN recognizes the realm of initial NAI, then no special processing for network advertisement/selection is needed) and (If the WLAN AN has no direct roaming relationship with the initial realm, the WLAN AN

Art Unit: 2617

shall deliver the network advertisement information to the UE), wherein the WLAN AN initiate a second request/Identity message. The UE responds to the message with the new NAI determined in the subsequent operations.

However, 3GPP does not explicitly disclose “WLAN information stored in the WLAN UE”

In an analogous art, Hind discloses (Col. 4, Lines 15, where the mobile communication device has been forced to select a network that supports only limited services, further methods for **selecting or prioritizing** a communication network may be used. an advanced network reselection method is employed which may involve (a) **ensuring that a rescan timer is set**; (b) when **the rescan timer expires, performing a search for any new communication network that was not previously available**; (c) determining if the new network makes better communication services available than the voice-only network; (d) **confirming that the new network is either on the preferred network list, not on the forbidden network list, or not on either list**; and (e) **selecting the new network for registration**) and (Col. 12, Lines 26, Manually or automatically **selected networks** are preferably **added to the U-PPLMN list**, which may be **stored in a writable data store such as Flash memory 224 or RAM 226 (FIG. 2) in mobile station 115**), wherein prefer network selection list is stored in UE for network selection determination.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use 3GPP teaching major step of WALN UE selection in combination of Hind provides scanning operation is performed by the mobile device to

Art Unit: 2617

identify a plurality of cellular networks (by stored prefer list of WALN AN and network information network) that support a voice communication service in a geographic coverage area. (See abstract).

Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include:

Combine prior art elements according to known method to yield predictable result.

Regarding claim 2, Hind discloses (Col. 4, Lines 15, Where the mobile communication device has been forced to select a network that supports only limited services, further methods for **selecting or prioritizing** a communication network may be used.) network with the highest priority to be accessed by WLAN UE".

Regarding claim 3, Hind discloses" obtaining the identity information of the current WLAN, matching with stored in WLAN UE as the network selection to be carried; otherwise as claim 2 to be carried as the network selection (Col. 4, Lines 27, confirming that the new network is either on the preferred network list, not on the forbidden network list, or not on either list) as the network selection information.

Regarding claim 4, Hind discloses "if not so stored, storing the identity information, otherwise, inhibiting storing" (col.2 Lines 26, confirming that the new network is either on the preferred network list, not on the forbidden network list, or not on either list; and (e) selecting the new network for registration) and (Col.11, Lines 26, Referring again to FIG. 4, mobile station 115 normally has access to a preferred network list in the form of a PPLMN stored on a SIM card) and (Col. 13. Lines 41,

Art Unit: 2617

Acceptable signal strength differences may be stored, for example, in a memory of a mobile station), wherein imply unacceptable network selection won't be stored. .

Regarding claim 5, Hind discloses "wherein pre-configured mobile communication work with the highest priority is the home network" (Col. 11. Lines 5, Mobile station 115 then checks to ensure that an interconnection, such as a GRX network for a GPRS network, is available to the home network from this highest-priority data-capable network on the preferred list.)

Regarding claim 6, 3GPP discloses "wherein WLAN APID or SSID (Page 17, 5.9.1.3, Network selection, support for 3GPP interworking by a WLAN may be indicated by the support of a well-known SSID value by the WLAN. This SSID may either be the Broadcast SSID or will be probed for by the UE) and (page 14, 5.6 IP network selection, The request W-APN may also indicated a point of connection to the IP network) wherein IP network address for is media Access Control (MAC) address of the access Point (AP)"

Regarding claims 8 and 9, Hind discloses "after storing the WLAN ID, setting a valid time for the stored network selection to make the stored contents invalid when the survival time is exceeded" (Col. 4, Lines 15, (a) ensuring that a rescan timer is set; (b) when the rescan timer expires, performing a search for any new communication network that was not previously available).

Regarding claim 11 and 13 has limitations similar to those treated in the above claim 8 rejection(s), and are met by the references as discussed above.

Art Unit: 2617

Regarding claims 14 and 27, 3 GPP discloses “deleting the identity information of the WLAN and its corresponding network selection information stored by the WLAN UE” (Page 42, A1.2. Immediate purging of a user from the WLAN access) and (page 47, A2.2.6. Purge function fro WLAN interworking that it has deleted the information of a disconnected subscriber after the implicit or explicit (over timer) logging off the subscriber.), wherein WLAN UE stored information was deleted after timer expired.

Regarding claims 15 and 28-29, Hind discloses the identity information to be stored in WALN UE (Col 5, Lines 65, and The SIM card can have approximately 64K of memory)threshold for the amount) and hold many key configuration, identification, and subscriber related information 250).and (Col.16. Lines 18, if unable to actually access the service, the PLMN is removed from the service access list in step 1112 and the method continues at step 1108. The mobile station will know that the data service is unavailable), wherein new access network information will replace with new one after time is expired or exceeds the threshold memory.

Regarding claim 16, 3GPP discloses “wherein network selection information is contained in the Network Access Identity (NAI)” (Page 12, 5.4 User identity, for re-authentication, UE shall use the previously allocated Re authentication ID as specified in IETF [EAP-SIM] and [EAP-AKA] specification as its NAI user identity.

Regarding claim 17, 3GPP discloses “wherein WLAN UE re-selecting mobile communication network, and obtaining the network information corresponding to the selected mobile communication network and sending a message to WLAN AN” (Page 14, 5.6. IP Network selection, The UE can connect to different IP network, including

Art Unit: 2617

the internet or external IP network. The user may indicate a preferred IP network with requested WLAN Access Point Name (W-APN), wherein sending a message of new network to the W-APN (WLAN AN).

Regarding claim 18, has limitations similar to those treated in the above claim 8 rejection(s), and are met by the references as discussed above.

Regarding claim 19, has limitations similar to those treated in the above claim 17 rejection(s), and are met by the references as discussed above.

Regarding claim 21 is drawn to the method of using the corresponding method claimed in claims 18. Therefore method claim 21 is rejected for the same reasons of (anticipation or obviousness) as used above.

Regarding claim 22 is drawn to the method of using the corresponding method claimed in claims 20. Therefore method claim 22 is rejected for the same reasons of as used above.

Regarding claim 23, 3GPP discloses "wherein automatically selecting network information sent by the network according to parameters set in advance" (Page 17, 5.9.1.3 Network Selection, Support for 3GPP interworking by WLAN may be indicated by the support of a well known SSID value by the WLAN. This SSID may either be Broadcast SSID or will be probed for by the UE), wherein the network selection is set by 3GPP interworking in advance.

Regarding claim 24, has limitations similar to those treated in the above claim 23 rejection(s), and are met by the references as discussed above.

Art Unit: 2617

Regarding claim 25, 3GPP discloses “Wherein, WLAN internetworking network refers to 3GPP-WLAN interworking network” (Page 7, 3GPP - WLAN Interworking: Used generically to refer to interworking between the 3GPP system and the WLAN family of standards. Annex B includes examples of WLAN Radio Network Technologies)

Regarding claim 26, (3GPP discloses “wherein mobile communication network refers to a public land mobile network (PLMN)” (Page 19, Scenario 3 requires that all packets sent to/from a WLAN UE are routed via a VPLMN in a 3GPP network), wherein mobile network is applied to home or visitor PLMN.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2617

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KUO WOO whose telephone number is (571)270-7266. The examiner can normally be reached on 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KUO WOO/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617